



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/768,758

01/30/2004

Theodore Thomas Blackmon

PA2686US

7062

22830

7590

08/28/2008

CARR & FERRELL LLP  
2200 GENG ROAD  
PALO ALTO, CA 94303

EXAMINER

ANTONIENKO, DEBRA L

ART UNIT

PAPER NUMBER

3689

MAIL DATE

DELIVERY MODE

08/28/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/768,758

**Applicant(s)**BLACKMON, THEODORE  
THOMAS**Examiner**

DEBRA ANTONIENKO

**Art Unit**

3689

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/7/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 33 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 33 recites the limitation "the matching module" in line 3. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-40 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding Claims 1-16: In order for a method to be considered a "process" under §101, a claimed process must either: (1) be tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials). *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972). If neither of these requirements is met by the claim, the method is not a patent eligible process under

Art Unit: 3689

§101 and is non-statutory subject matter. With respect to Claim 1, the claim language does not include the required tie or transformation and thus is directed to nonstatutory subject matter. Claims 2-16 are dependent and are rejected in a like manner.

Regarding Claims 17-40: Similarly, Claims 17, 34, and 39 recite a system with software modules, a computer program product with program code, and a system with means for generating a computerized model, respectively. These are all considered to be software per se unless there is an apparatus as well that is capable of executing the software appropriately in order to provide functionality. In other words, for applicant to claim the steps performed by the program, the applicant must recite the claims such that when the program is executed, the program causes a computer/processor to perform the steps. Claims 18-33, 35-38, and 40 are dependent and are rejected in a like manner.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwegler et al., "New Information Technology Tools Enable Productivity Improvements," 2000 North American Steel Construction Conference Proceedings,

Art Unit: 3689

2000, pages 11/3-11/20 (hereinafter Schwegler) in view of Kroeger, U.S. Patent

Application Publication Number 2002/0165723 A1 (hereinafter Kroeger).

**Examiner's Note:** The Examiner has pointed out particular references contained in the prior art of record within the body of this action for the convenience of the Applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply. Applicant, in preparing the response, should consider fully the entire reference as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Regarding Claims 1, 17, 34, 39, Schwegler teaches managing a construction project comprising: generating a computerized simulation model for the construction project representing project materials in the construction project (page 11/6, section 1.3; Figure 1); mapping the project materials represented in the computerized simulation model into constructible elements (page 11/6, ¶4; effective staging and sequencing of work).

Schwegler does not explicitly disclose determining at least one work step for each constructible element; and selecting at least one constructible element to create a work package comprising the at least one constructible element and the at least one work step for the at least one constructible element.

However, Kroeger does disclose making a list of development tasks to be performed for the entire project [0005] and that all elements of a project may be treated as tasks ([0096]; [0106]; Table 1; Table 1A). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify and include in Schwegler's simulation the capability of Kroeger's invention to break down a project into smaller elements in order

Art Unit: 3689

to manage the project efficiently and effectively. It is well known to break down large projects into smaller, more manageable segments in order to complete the project.

Regarding Claims 2 and 19, Schwegler further teaches organizing the constructible elements into construction areas in the computerized simulation model (Figure 2).

Regarding Claims 3 and 18, Schwegler does not explicitly teach organizing the constructible elements into construction crafts in the computerized simulation model. However, Kroeger discloses organizing the construction into the different crafts (Table 1A). It would have been obvious to one of ordinary skill in the art at the time of the invention to separate the elements into the different crafts in order to be able to hire the particular subcontractor to do the job. It is well known that subcontractors are by craft, i.e., electrical, plumbing, carpentry.

Regarding Claims 4 and 20, Schwegler teaches organizing the constructible elements into systems for testing and turnover in the computerized simulation model (Figure 2; page 11/9, section 2.3; page 11/11, section 3.1.2).

Regarding Claim 5, Schwegler does not explicitly teach prioritizing procurement of the constructible elements based on target installation dates of the constructible elements. However, Kroeger discloses prioritizing procurement based on target installation dates ([0005]). It would have been obvious to one of ordinary skill in the art at the time of the

Art Unit: 3689

invention to prioritize procurement based on target installation dates in order to save time and money. This is well known.

Regarding Claims 6, 26, 35, and 40, Schwegler further teaches generating a visual display of the computerized simulation model (page 11/5, section 1.2).

Regarding Claims 7, 27, and 36, Schwegler further teaches generating an interactive three-dimensional graphical display of the computerized simulation model (page 11/5, section 1.2; page 11/10, section 2.5).

Regarding Claims 8, 21, 22, and 38, Schwegler further teaches allowing a user to point-and-click on the at least one constructible element in a visual display of the computerized simulation model to select the at least one constructible element (page 11/5, section 1.2; links between any level of detail of the product and process models; page 11/10, section 2.5).

Regarding Claims 9 and 23, Schwegler does not explicitly teach providing status information. However, Kroeger discloses ([0153]). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide status information of tasks in order to manage the project efficiently and effectively.

Art Unit: 3689

Regarding Claim 10, Kroeger further discloses keeping track of tasks completed ([0154]). It would have been obvious to one of ordinary skill in the art at the time of the invention to keep track of when tasks are completed in order to manage the project efficiently and effectively. This is well known.

Regarding Claims 11 and 24, Kroeger further discloses time estimates for tasks ([0113]; [0187]). It would have been obvious to one of ordinary skill in the art at the time of the invention to create time estimates of tasks in order to manage the project efficiently and effectively. This is well known.

Regarding Claims 12 and 25, Kroeger further discloses cost estimates for tasks ([0113]; [0174]; Table 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to create cost estimates of tasks in order to manage the project efficiently and effectively. This is well known.

Regarding Claims 13, 28, and 37, Schwegler teaches an interactive three dimensional simulation (page 11/5, section 1.2).

Regarding Claims 14, 15, and 29, Kroeger further discloses sequencing and assigning tasks ([0067]; [0096]-[0103]; [0109]). It would have been obvious to one of ordinary skill in the art at the time of the invention to sequence and assign tasks accordingly in order to manage the project efficiently and effectively.

Regarding Claim 16, Schwegler does not specifically teach accessing engineering data for the construction project in a database, wherein generating a computerized simulation model is based on the engineering data; and accessing manufacturing data for the construction project in an other database, wherein mapping the project materials into constructible elements is based on the manufacturing data (page 11/10, sections 2.4 and 2.5; page 11/17, section 6.3);

Regarding Claim 30, Schwegler further teaches a reprioritization module configured to reprioritize the sequence of the work packages (page 11/10, section 2.5; re-sequence).

Regarding Claim 31, Schwegler further teaches analyzing spatial constraints between components and activities (page 11/11, section 3.1.3).

Regarding Claim 32, Schwegler further teaches a verification module configured to analyze resource constraints for the construction project to determine whether a work crew can execute the work package subject to the constraints (page 11/9, section 2.2; verify whether the design is buildable; page 11/15, section 5.2; verification of constructability and verification of site constraints in design and schedule).

Regarding Claim 33, Schwegler does not explicitly teach a converter module configured to convert data accessed from an external database into a common format for use in

Art Unit: 3689

the matching module. However, Schwegler does disclose use of the web (page 11/10, section 2.4), the use of e-commerce (page 11/17, section 6.5), and the importance of information exchange (page 11/16, sections 6.1 and 6.2). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the capability of accessing data from other databases in order to facilitate project management.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DEBRA ANTONIENKO whose telephone number is (571)270-3601. The examiner can normally be reached on Monday through Thursday, 7:30 AM to 4:00 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janice Mooneyham can be reached on 571-272-6805. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3689

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DA

/Janice A. Mooneyham/  
Supervisory Patent Examiner, Art Unit 3689